

NYS IPM Project Annual Report

Project Title: Improving Field Crop Extension outreach through enhanced growing season communication and outreach

Principal Investigators: Ken Wise¹

¹NYS Integrated Pest Management Program,

Project Start: 5/4/2017

Project Term: 9/28/2017 **Report Fiscal Year:** 2017

Executive Summary

Cornell Cooperative Extension (CCE) educators are Cornell University's front line in helping New York field crop producer clientele with crop production and pest management issues. Keeping CCE personnel informed on the latest information and developments helps us meet Cornell's high standards for extension outreach and provides clientele with quality, pertinent, timely and user-friendly programs and resources that maximize our educational impacts. Enhancing communication opportunities between CCE county and campus personnel helps strengthen the outreach network, and is an important component of CCE's professional development. 2017 marked the 10th year of the call series. This season twenty-two conference calls were held between 5/4/17 and 9/28/17 to improve campus and field staff communication regarding field crop pest and crop management issues during the growing season. Each forty-five minute call averaged 11 participants. Conference call participants were better equipped to conduct their outreach efforts and meet the field crop pest management needs of their stakeholders. Enhanced communication among CCE personnel with field crop responsibilities improved effectiveness of outreach efforts regarding timely pest management issues. In addition to direct communication during the conference call, topics discussed were summarized and highlights made available to other stakeholders weekly through on-line NYS IPM Weekly Pest Report blogs available at the NYS IPM Program field crops website. Articles from the Weekly Pest Report are frequently used in various extension newsletters and other media including Facebook and Twitter postings with an estimated outreach of 5,000 plus subscribers. End of season discussions with participants were very positive with much interest and support to continue the conference call series in 2017.

Issue

County and regional Cornell Cooperative Extension (CCE) field crop educators are Cornell University's front line in helping New York field crop producer clientele with crop production and pest management issues. Keeping CCE personnel informed on the latest information and developments helps us meet Cornell's high standards for extension outreach and provides clientele with quality, pertinent, timely and user-friendly programs and resources that maximize our educational impacts. Regular communication between CCE county and campus personnel helps strengthen the outreach network, and is an important component of CCE's professional development. CCE personnel translate knowledge gained from these educational opportunities into outreach materials and other resources to effectively meet needs of clientele.

Integral to regular communication and team building is an open exchange of information between individuals with varying levels of experience. Seasoned experts are able to help new extension personnel gain a statewide perspective of production issues and opportunities in real time. Regular dialogues provide a forum for review and discussion of new information and

technologies, including strengths, weaknesses, and advantages of adoption. Frequent communication assures our unified vision and strengthens our consistent outreach message. These exchanges are often instrumental in helping to identify applied research needs, local demonstration opportunities, and the development of outreach resources / programs.

Progress Summary

Cornell Cooperative Extension (CCE) educators are Cornell University's front line in helping New York field crop producer clientele with crop production and pest management issues. Keeping CCE personnel informed on the latest information and developments helps us meet Cornell's high standards for extension outreach and provides clientele with quality, pertinent, timely and user-friendly programs and resources that maximize our educational impacts. Enhancing communication opportunities between CCE county and campus personnel helps strengthen the outreach network, and is an important component of CCE's professional development. In 2017, twenty four conference calls were held between 4/4/17 and 9/28/17 to improve campus and field staff communication regarding field crop pest and crop management issues during the growing season. Each call averaged 11 participants and lasted forty-five minutes.

Enhanced communication among CCE personnel with field crop responsibilities improved effectiveness of outreach efforts regarding timely pest management issues. In addition to direct communication during the conference call, topics discussed were summarized and made available to other stakeholders through 21 on-line NYS IPM Weekly Pest Report blogs (<http://blogs.cornell.edu/ipmwpr/>) available at the NYS IPM Program field crops website. Weekly Field Crop Pest Report 2017 reached over 450 subscribers directly via blog and list-serves, and over 2,500 more with reposts to other newsletters, and re-tweets to Facebook (700 followers) and Twitter (433 followers).

This years' call was particularly effective in communicating timely information on pest activity such as outbreaks of armyworm in corn and small grains, black cutworm in corn, western bean cutworm damage in corn, potato leafhopper in alfalfa, and small grain diseases. End of season discussions with participants confirmed overwhelming support and interest to continue the conference call series in 2017.

Expected and Observed Impact

The objective of this effort was to improve the timely statewide communication of pest management and crop production among field crop CCE personnel during the growing season. As in previous years (2008-2016) of field crop conference call implementation, CCE personnel with field crop responsibilities took advantage of the weekly opportunity to share observations, gain insights, acquire and present practical knowledge and technical information in an in-house professional development environment. These timely efforts enhanced field crop extension personnel (educators and faculty) communication and awareness on current pest and crop conditions. In addition, the timely forum allowed for discussion of anticipated pest, crop and weather issues, integrated pest and crop management and potential extension programming opportunities. The majority of those involved participated every year with new extension field staff joining in the discussions with more experienced field staff. A total of twenty-five individuals have actively participated and contributed to this projects success over its seven-year

duration. Project evaluations each year have documented participants found value in the timely updates, discussion, professional development and team building aspects of the conference calls that could then be used to increase potential extension outreach impacts with stakeholders.

The primary benefit of the conference call program lies in the enhanced communication and professional development of the extension personnel involved. Stakeholders ultimately benefit from this effort through the potential enhanced extension outreach impacts related to an increased timely awareness of pest issues, pre-emptive monitoring and management of potential pest problems that help grower stakeholders minimize or avoid pest impacts, better address pesticide use decisions and protect net profitability.

All Cornell Cooperative Extension (CCE) educators and Cornell faculty with field crop responsibilities were invited to participate. In 2017 a total of 20 CCE county and regional based educators and Cornell extension field crop specialist faculty participated in the twenty four calls held during the growing season between 5/4/17 and 9/28/17. Weekly calls averaged 11.5 participants with active participation and contributions by Cornell field crop specialists, Gary Bergstrom (plant pathologist), Elson Shields (entomologist), Quirine Ketterings (nutrient management) and Margaret Smith (plant breeder). Weekly Field Crop IPM Conference Calls included roll call, weather outlook (Northeast Region Climate Center), participant sharing of statewide pest and crop observations, and a review of the following week's pest watch list. The weather outlook was provided by Jessica Spaccio and others from the Northeast Climate Center. Field observations were shared by field crop CCE educators, IPM personnel and crop specialist faculty. Highlights of current pest status discussions were summarized for inclusion in the "View from the Field" feature of the NYS IPM Weekly Field Crop Pest Report blog (<http://blogs.cornell.edu/ipmwpr/#>). The target audience for this on-line newsletter are field crop professionals including producers, extension, agribusinesses, consultants, federal, state and local personnel and the general public. Articles from the Weekly Pest Report are frequently used in various extension newsletters and other media including Facebook and Twitter postings. The Weekly Field Crop Pest Report 2017 reached over 450 subscribers directly via blog and list-serves, and over 5,000 more with reposts to other newsletters, and re-tweets to Facebook (700 followers) and Twitter (433 followers).

The season 2017 growing season was marked by wet conditions across the state. Most of NYS was extremely wet. The state had a lot of rain that effected the timing of crops being planted. We had western bean cutworm damage to corn that caused economic losses on some hybrids in Northern and Western NY. The populations of western bean cutworm has increased dramatically statewide. True armyworm and black cutworm were a problems in many corn, small grains and some grass hay fields in across NYS. White mold was a problem in soybeans in Western NY this year. Disease pressure was up in small grains.

Weekly calls helped CCE field crop personnel keep informed on current status of statewide pest issues and provided a forum for detailed discussions on a variety of topics including: updates on the Fusarium Head Blight prediction model and fungicide use decision making (wheat), corn fungicide use considerations, western bean cutworm updates on risk to sweet and field corn and dry bean, weed management recommendations and decision making, vertebrate damage to field crops, sharing of timely resources and field monitoring reminders.

Participation in the field crop conference calls enhanced CCE outreach through timely communication among extension field staff enabling improvements to local outreach. CCE personnel could easily transform knowledge and insights gained from conference call discussions into direct outreach to local stakeholders resulting in improvements in cost effective and environmentally sound pest management decision-making.

A Google survey tool was used to collect end of season program evaluations. Evaluations were very positive with participants reporting the conference calls were a very worthwhile, helpful experience, increased participant awareness of current field issues, provided pertinent timely information critical for outreach and identified a “go-to” person or resources if additional information was needed.

Project Conclusion:

2017 marked the 10th year of this project. The objective of this effort was to improve the timely statewide communication of pest and crop production management issues among field crop CCE personnel during the growing season.

Over the ten seasons of field crop conference calls, CCE personnel with field crop responsibilities contributed to this weekly opportunity to share observations, gain insights, acquire and present practical knowledge and technical information in an in-house professional development environment. These timely efforts enhanced communication by field crop extension personnel (educators and faculty) and the collective awareness on current pest and crop conditions. Dairy cattle pest management issues of timely significance were also discussed on occasion. In addition, the timely forum allowed for discussion of anticipated pest, crop and weather issues, integrated pest and crop management including reviews of problem identification, assessment and management alternatives, and identification of research and resource needs and potential extension programming opportunities. The majority of those involved participated each of the eight years with new extension field staff joining in the discussions with more experienced field staff. In addition to extension field staff educators and NYS IPM Program personnel Cornell field crop specialists Russ Hahn (weed scientist), Gary Bergstrom (plant pathologist) and Margaret Smith (plant breeder) consistently contributed providing their expertise and perspectives to the discussion.

The Weekly Field Crop Pest Conference Call successfully continued to strengthen communication among field crop extension personnel actively engaging up to 25 extension educators and specialists in timely conversation about current pest observations and issues. These efforts have enhanced the field crop extension team effectiveness and our ability to anticipate, prepare and respond to seasonal pest management challenges. In addition, the calls have contributed to professional development and team building of this extension network.

Post-meeting activities included summarizing the weekly weather outlook and field observations for inclusion in the NYS IPM Weekly Field Crop Pest Report blog (<http://blogs.cornell.edu/ipmwpr/#>) an on-line newsletter. The intended audience for this newsletter includes CCE personnel, crop advisors, agricultural industry, farmers and others. Direct and multiplier effect distribution of this blog, including articles extracted for other newsletters, posts and tweets to Facebook and Twitter, was estimated at 5,000 in 2017.

Resource links and supplemental information discussed during the conference call were http://www.nysipm.cornell.edu/organic_guide/dairy_org_guide.asp shared with CCE participants via follow up email.

Participants were regularly polled during the season for feedback regarding the conference call. An end of season questionnaire was shared each year. Responses were consistently universally very positive emphasizing the value of timely updates, discussion, professional development and team building.

The following responses to the 2017 evaluation are consistent to the types of responses to the same question in previous years.

Were there one or two items discussed during the conference call that helped you make an impact with producers or clientele?

- Pest Status around the state, Crop conditions, answers to specific weed control questions from our area (late emerging fall panicum)
- Drought related crop discussions were very useful this year.

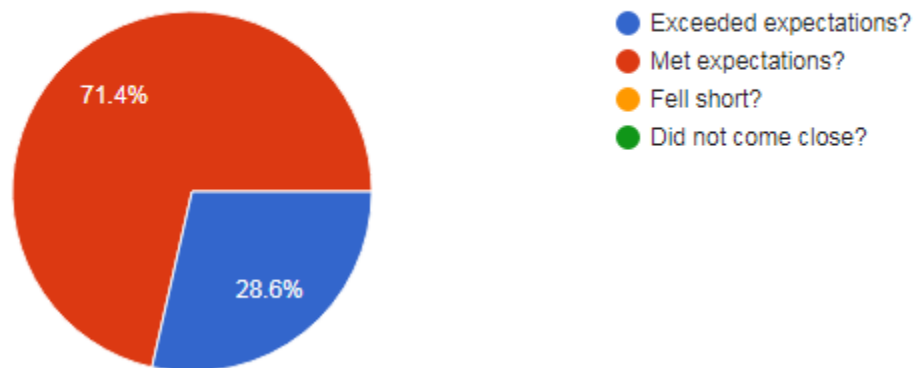
The primary benefit and potential impact of the conference call program lies in enhanced communication and professional development of the extension personnel involved. Stakeholders ultimately benefit from this effort through enhanced extension outreach impacts related to increased timely awareness of pest issues, pre-emptive monitoring and management of potential pest problems that help grower stakeholders minimize or avoid pest impacts, better address pesticide use decisions, and protect net profitability.

Appendix: 2017 NYS IPM Field Crop Weekly Conference Call - Evaluation Summary
(Summary modified from Google Survey Instrument)

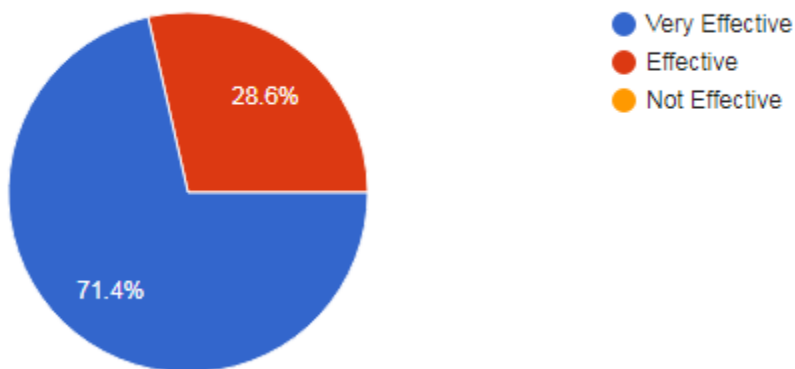
Appendix: 2017 NYS IPM Field Crop Weekly Conference Call Evaluation Summary

The goals of our 2017 NYS IPM Field Crop Weekly Conference Call series were to “Improve timely statewide communication of pest management and crop production among field crop CCE personnel during the growing season.”

How well have we met our goal this season? (N=7)



Was the conference call a good medium for timely statewide communication of CCE Pest Management information? (N=7)

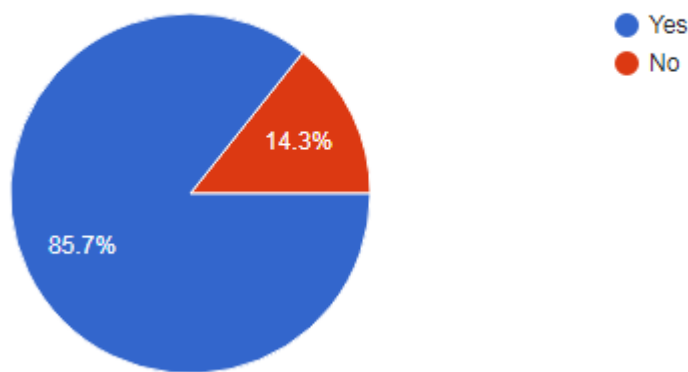


Were there one or two items discussed during the conference call that helped you make an impact with producers or clientele?

- The updates on pests within a region so we can alert farmers to watch for them

- Discussion of two major pest events- western bean cutworm populations much higher this year and major infestation of PLH in late June. Circulated the information both from the state and local scouting which helped producers react more quickly.
- Mostly the conference call helped me be aware of pest concerns in field crops across the state.
- Can't remember, since it was a few months ago.
- Timing of pests throughout the season, Weather reports

Would you recommend participation in these field crop conference calls to other CCE personnel? (N=7)



Do you have any suggestions on how to strengthen involvement by other CCE educators?

- I think it is just a matter of timing when somebody misses
- Continue to offer special topics from time to time utilizing the zoom for powerpoints so participants can see pictures to go along with talk.
- Personal phone calls to extension offices to determine who has responsibility for field crop programming, who might have an interest in participating and adding them to the list.
- send me a text the morning of the call, so I do not forget it
- Specific criteria to present i.e. % of crops planted, issues, weed, insect, disease, nutrient deficiencies present etc... That way someone doesn't say I have nothing to present.

What did you like the most about the NYS Field Crop Weekly Conference Call?

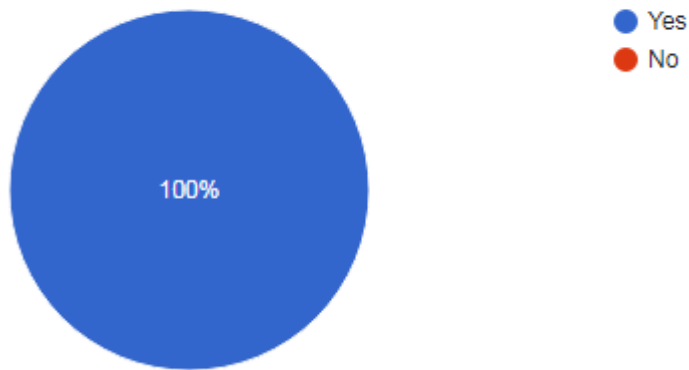
- . special segments from Margaret , Gary or , Q
- Area reports from field crop agents. Additional information about crop conditions. Comments from NYSIPM specialists and Cornell staff
- timeliness; staying aware of what the problems were that week
- reports from others, the discussion of timely topics, special presentations all very useful
- Hearing what's going on in surrounding areas which helped us keep an eye out for upcoming issues and also the interaction with CCE personnel.

What did you like the least about the NYS Field Crop Weekly Conference Call?

- The fact I am still struggling with Zoom
- as someone new to the field crops team, sometimes it was hard to keep track of who was who (especially with people call in on phones, so no names associated with Zoom, or only using first names)...not a big deal; I'm sure I'll catch on!
- The typical format of weather reports is loaded with minute detail. I have a hard time digesting it. I need a big picture of what the weather system is doing over the next two weeks.

No one having something to present during the call

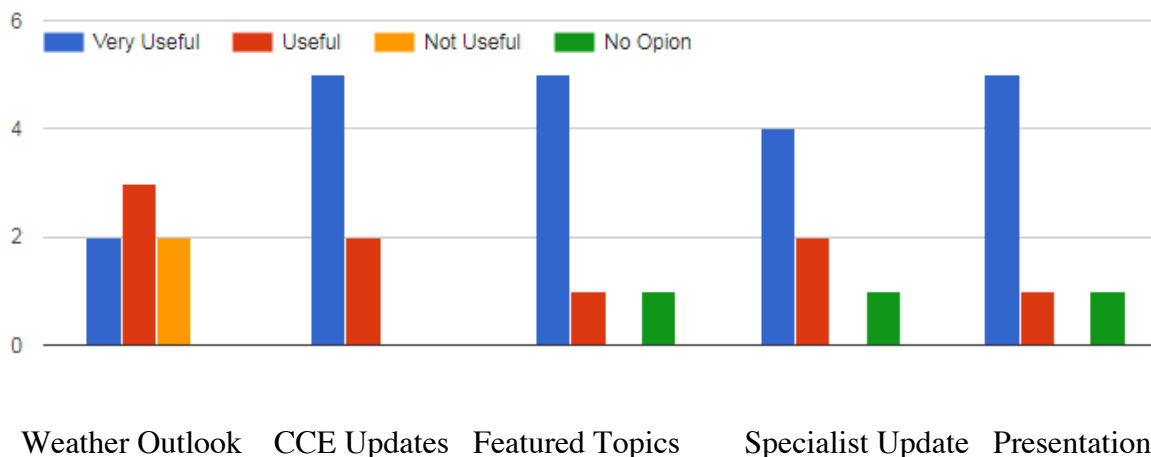
Was the 8:30 - 9:15 am Thursday a convenient meeting time? (N=7)



The meeting length was: (N=7)



**We are interested in your assessment of the following components of the Conference Call.
(N=7)**



Do you have any specific comments or suggestions to improve next season's NYS IPM Field Crop Weekly Conference Call series to better suit your field crop IPM extension needs and those of your clientele?

- Just continue
- Invite new Cornell staff Bryan Brown etc
- doing a good job. Are there outside guests that might join for one call just to see what we are doing and our impact?
- Everyone make an effort to provide field information.

Do you have any suggestions for additional pest management or professional development topics to be subjects for off-season field crop conference calls?

- Resistance Management
- Angel M- Drone research results, Quirine and Tulsi- field zone mgt. Someone from ag industry to discuss crop record software, someone cost of production, rept on fiber and oil hemp production,
- Maybe have ken Wise and Gary Bergstrom out for a disease ID twilight meeting when there are lots of diseases to show.
- Herbicide & Weed resistance documentation for New York State. Last updated in 1993...?

Future pest management programming? We would like to ask for your input regarding needs, opportunities and priorities for field crop or livestock pest management related research and extension. Please take a moment to share your thoughts and suggestions:

- Focus research on white mold control in soybeans, economic analysis of PLH resistant alfalfa hybrids compared to current, high yielding, high quality non plh resistant commercial varieties. Investigate use of drones to identify western bean cutworm infestation locations in corn fields. Analysis of BMR forage sorghum-sudan and triticale rotation for organic dairy production w emphasis on milk/acre, weed and pest

management. Systems analysis looking at best production techniques: row spacing , populations, time of planting. Kilcer has some of this information. Monitor cutworm, armyworm and slug/snail activity in no-till corn and soybeans with cover crops- investigate best mgt practices.

- Herbicide Tolerance & Weed resistance documentation for New York State. Last updated in 1993...?

What do you see as the most important pest(s) or pest management issues/challenges you and/or your clients will face in the next 5 years?

- Consumer changes in the marketplace that are difficult or expensive to meet
- Resistance, Consumer mistrust of technology
- white mold in soybeans, slugs, cutworms and armyworms in no-till and cover cropped fields. NCLB in BMR and other susceptible corn hybrids. Mgmt of invasive weeds like wild chervil, spotted knapweed, water hemp, horseweed, palmer amaranth. Crown rust in oats, scald in barley, fusarium in wheat
- controlling the western bean cutworm seems like it can be a real problem.
- Water Hemp, Maretail and eventually the introduction to Palmer Amaranth

Are there specific field crop pest management areas you feel need additional extension efforts, resources?

- field crop weed management- refill Russ Hahn's position. Cover crop timing of planting and methods for termination. Someone to work on field crop records
- reducing / eliminating herbicides in corn/cover crop systems
- Weed resistance documentation and what management programs to switch to

2017 Weekly Field Crops Conference Call – Survey Instrument

Thank you for your active participation and contributions to our 8th season of Weekly Field Crop Conference Calls. There were twenty-two weekly field crop conference calls this season. Your involvement and input enhances the value of these meetings.

We would like to request a few minutes of your valuable time to provide feedback on this season's calls and some thoughts for the future. Your responses and constructive suggestions will be very helpful for improving next season's program.

Thank you in advance for your help!

Ken

The goals of our 2017 NYS IPM Field Crop Weekly Conference Call series were to “Improve timely statewide communication of pest management and crop production among field crop CCE personnel during the growing season.” *Required How well have we met our goal this season?

- ☐ Exceeded expectations?
- ☐ Met expectations?
- ☐ Fell short?
- ☐ Did not come close?

Was the conference call a good medium for timely statewide communication of CCE Pest Management information? *Required

- ☐ Very Effective
- ☐ Effective
- ☐ Not Effective

Were there one or two items discussed during the conference call that helped you make an impact with producers or clientele? If so please list 1, 2 or more examples

Would you recommend participation in these field crop conference calls to other CCE personnel? *Required

- ☐ Yes
- ☐ No

Do you have any suggestions on how to strengthen involvement by other CCE educators?

What did you like the most about the NYS Field Crop Weekly Conference Call?

What did you like the least about the NYS Field Crop Weekly Conference Call?

Was the 8:30 - 9:15 am Thursday a convenient meeting time? *Required

- ☐ Yes
- ☐ No

The meeting length was:

- ☐ Too Long
- ☐ Just Right
- ☐ Could be longer

We are interested in your assessment of the following components of the Conference Call*Required

| | Very Useful | Somewhat Useful | Not Useful | No Opinion |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Weather Outlook | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| CCE County Updates | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Featured Pest topic(s) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Specialist Updates | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Presentation (Powerpoint, shared photo's) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Do you have any specific comments or suggestions to improve next season's NYS IPM Field Crop Weekly Conference Call series to better suit your field crop IPM extension needs and those of your clientele?

Do you have any suggestions for additional pest management or professional development topics to be subjects for off-season field crop conference calls?

Future pest management programming? We would like to ask for your input regarding needs, opportunities and priorities for field crop or livestock pest management related research and

extension. Please take a moment to share your thoughts and suggestions: *Required What do you see as the most important pest(s) or pest management issues/challenges you and/or your clients will face in the next 5 years?

Are there specific field crop pest management areas you feel need additional extension efforts, resources?

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